

Subject Code: 1SC2030415	Subject Title: ANALYTICAL CHEMISTRY PRACTICAL
COURSE TYPE: CORE COURSE	

Teaching scheme (hours) per week		Credit			Theory Marks		Practical Marks		Total
Theory	Practical	Theory	Practical	Total	Uni. Assessment	Cont. Assessment	Uni. Assessment	Cont. Assessment	
--	8	--	8	8	--	--	120	80	200

LIST OF PRACTICALS:

1. Characterization of pharmaceutical drugs substance by IR Spectroscopy.
2. Determination of various metal ions by Atomic Absorption Spectrophotometry.
3. Simultaneous determination of metal ions by spectrophotometry.
4. Ion-exchange chromatography for the separation of cations and anions.
5. Fluorimetric determination of vitamins and drugs.
6. Separation and purification of mixture of compounds by High performance liquid chromatography.
7. Separation of mixture of highly volatile compounds by Gas chromatography.
8. Determination of gold and silver nanoparticle by UV visible spectroscopy.
9. Estimation of potassium, calcium and sodium from given sample using flame photometric method.
10. Method development and validation of drugs by UV spectrophotometry. (Without Extraction)
11. Determination of Copper in Various Waters by Graphite Furnace Atomic Spectroscopy.
12. Determination of Chloride using Ion-selective Electrode (ISE).
13. Characterization of organic substance by ¹H NMR Spectroscopy.
14. Simultaneous determination of metal ions by fluorescence spectroscopy.
15. Determination of various trace element sample by Inductively Couple Plasma Atomic Emission spectroscopy or Mass Spectroscopy
16. Characterization of drug substances by Powder X-ray method.
17. Synthesis, Identification and Determination of various Metal, Metal carbonate, fullerene, and Metalsulphide Nano-particals and their Size by TEM, SEM, AFM and DLS.